By Carol R. Collier

Water Resource Management —It Involves Everyone

The availability and use of water is not just an issue for the arid western states. We know that fact in the Delaware River Basin. Even though our region receives approximately 42 inches of precipitation a year, in some parts of the basin there is not adequate water to support anticipated uses. We are not in dire straits, it is not a water crisis, but we do have an opportunity, right now, to shape the future of the region.

Why now? Because we have the will, the interest of the people, and the tools.

I just finished reading "Cadillac Desert" by Marc Reisner which describes the history of water development in the West. We are and can continue to do it better! We know that while building dams for water storage is important and may be required on some streams, it is not the only way to extend our water availability. Other methods that must be evaluated include conservation, conjunctive use, leak detection, reuse, and process change.

We know that water resource management involves in-stream flow needs and improvement of water quality. Often when you hear the term "water use" only human uses come to mind - potable water, electric generation, industrial processes. However, when accounting for water needs in the basin, we must include the volume of water in streams and rivers necessary to support aquatic communities and fisheries and to maintain water quality.

Daylilies - D. Andrew Hornberger

Water quality and water quantity go hand and hand.

Any water resource planning must be holistic, accounting for all aspects of the water cycle - water supply, waste water, storm water, ground water, surface water, wetlands, and be conducted on the basis of watershed boundaries, not political ones. Also, the process must account for our various levels of government and recognize the significant role of municipal government in land use control. Finally, the system must encourage input from the public and consider the socio-economic needs of the community.

In June of 2000, the DRBC and the Monroe County Conservation District received a Growing Greener Grant from the Commonwealth of Pennsylvania to conduct a "Goal-based Watershed Management" pilot study on Pocono Creek, a tributary of Brodhead Creek near Stroudsburg, Pennsylvania. The purpose of the

study is to test a new holistic way of watershed management that is based on setting environmental performance standards and developing management strategies that will ensure protection of the water resources, while accounting for the socio-economic needs and desires of the local municipalities.

The Pocono Creek was chosen because it is a waterway "on the edge." It is a high quality stream with special natural amenities such as the Tannersville Bog on Cranberry Creek, a Pocono Creek tributary. People have been attracted to the area because of its amenities. BUT. . .there are highways (Routes 80 and 611), shopping malls and outlet stores, new housing developments, an expanding ski area and water park, and encroachments that threaten the future quality of the watershed. NOW is the time to plan so that the creek and the watershed's natural amenities are not sacrificed as growth occurs.

Planning at this stage allows the municipalities to be in control of their fate.

How much land use change can the Pocono Creek system withstand? How can negative environmental impact be reduced by proper siting of land uses and the use of specific design requirements? Providing a dialogue on these questions will give the municipalities the tools they need to plot the future they desire.

One of the critical steps in this study is setting the environmental standards. Not just chemical parameters, but defining the desired biological or "critter" community, the necessary in-stream flows, and an index of the physical stability of the stream. The desired stream quality was based on public input and actual numerical targets established by the environmental agency members of the team. With collective water quality and quantity targets, the county and municipalities can evaluate different strategies that incorporate point source discharge, non-point runoff, storm water management, water allocation, stream corridor protection, and designated areas of growth.

Chicory - D. Andrew Hornberger

The solutions can be cost effective and represent the concerns of the local community.

This type of study takes many partners. The DRBC is working with the Monroe County Conservation District, Monroe County Planning Commission, the Brodhead Watershed Association, Villanova University, U.S. Geological Survey, Pennsylvania DEP, Pennsylvania Fish and Boat Commission, the seven municipalities in the watershed, and the key landowners and stakeholders, including Camelback Ski Area.

In the past we have missed many cost effective solutions to water problems because we have looked at only one aspect at a time (i.e. assessing waste water discharge separately from water conservation or storm water management). With the increased public knowledge of water issues and the increased number of watershed associations, there is the will and the tools to plan for the use and allocation of water. Water can be a very big asset to the region and will play a major role in our future.

Now is the time to ask the hard questions and develop water resource management plans that address all the water issues in a watershed.

If you would like more information about our Pocono Creek Goal-based Watershed Project, please see the chapter titled "Watershed Planning: the New Look" in this report and visit our web site at www.drbc.net.